CITY OF CANTON, OHIO

GP 1137-WAYNESBURG DRIVE SE SANITARY SEWER REHABILITATION

NOVEMBER 2010

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PUBLIC AGENCIES/

NATURAL GAS
DOMINION EAST OHIO GAS
DISTRIBUTION & TRANSMISSION
320 SPRINGSIDE DRIVE
AKRON, OHIO 44333
330-664-2409
ATTN: MARY LONG
EMERGENCY NO.
1-800-521-4400

COMMUNICATIONS CABLE TIME WARNER CABLE 5520 WHIPPLE AVE N.W. NORTH CANTON, OHIO 44720 330-494-9200, EXT. 87 ATTN: TIM KNIGHT

SANITARY AND STORM SEWER CITY ENGINEER'S OFFICE 2436-30TH ST. N.E. CANTON, OHIO 44705 ATTN: DAN MOEGLIN, P.E., S.I. 330-489-3381

WATER
WATER DEPARTMENT
2664 HARRISBURG RD. N.E.
CANTON, OHIO 44708
330-489-3310
ATTN: LEWI MILLER

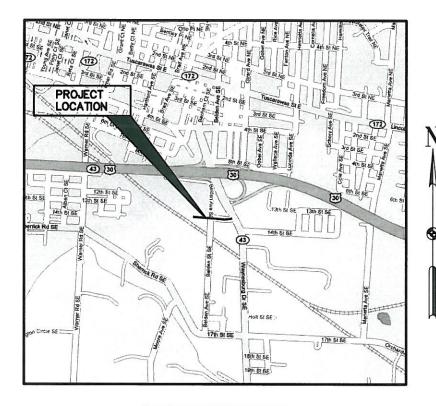
ODOT DISTRICT 4 2088 SOUTH ARLINGTON ROAD AKRON, OHIO 44306 800-603-1054 ATTN: KEN GREENE TELEPHONE AT&T 50 WEST BOWER STREET AKRON, OHIO 44308 330-384-8057 ATN: JIM BUETEL EMERGENCY NO. – 24 HRS. 1-800-572-4545 OPTION#4

ELECTRIC
AMERICAN ELECTRIC POWER
AMERICAN ELECTRIC POWER
SOLUTION
BOX 24400
CANTON, OHIO 44701-4400
330-438-7762
ATTN: KEN HUOT
EMERGENCY NO.
1-800-672-2017

SANITARY SEWER STARK COUNTY SANITARY 1701 MAHONING ROAD NE CANTON, OHIO 44705 330-451-2303 ATTN: JIM JONES, P.E.

TRAFFIC INTERCONNECT CITY ENGINEER'S OFFICE 2436-30TH ST. N.E. CANTON, OHIO 44705 330-489-3370 ATTN: NICK LOUKAS, P.E.

CANTON TOWNSHIP
ROAD SUPERINTENDANT
4711 CENTRAL AVE. S.E.
CANTON, OHIO 44707
330-484-2501
ATTN: TOM HEWITT



VICINITY MAP

ENGINEER/ SURVEYOR

HAMMONTREE & ASSOCIATES, LTD. 5233 STONEHAM RD. NORTH CANTON, OHIO 44720

ATTN: THOMAS POWELL, P.E. TELE: (330) 499-8817 FAX: (330) 499-0149

OWNE

CITY OF CANTON, OHIO 2436 30TH STREET N.E. CANTON, OHIO 44705

ATTN: DANIEL MOEGLIN, P.E., S.I. TELE: (330) 489-3381 FAX: (330) 489-3337

2 WORKING DAYS
BEFORE YOU DIG
CALL TOLL FREE 800-362-2764

APPROVED BY:

DANIEL MOEGLIN, P.E., S.I.—CANTON CITY ENGINEER

DATE

APPROVED BY:

THOMAS R. POWELL, P.E.—HAMMONTREE & ASSOCIATES, LIMITED

DATE

REGISTERED ENGINEER NO. E—45970

APPROVED BY: ODOT VIA PERMIT STA 43-59 DATED: JULY 20, 2010

MODIFICATIONS DATED 11/1/2010

APPROVED BY: Longlus f. faring

DOUGLAS J. HARRIS, P.E. – SANITARY ENGINEER, CANTON
REGISTERED ENGINEER NO. 70789

11/18/10

CITY OFFICIALS

MAYOR: WILLIAM J. HEALY II
SERVICE DIRECTOR: WARREN R. PRICE

SAFETY DIRECTOR: THOMAS REAM

COUNCIL MEMBERS

WARD 1: GREG HAWK

WARD 2: THOMAS E. WEST

WARD 3: JAMES E. GRIFFIN

WARD 4: CHRIS SMITH

WARD 5: TERRY PRATER

WARD 6: DAVID R. DOUGHERTY

WARD 7: PATRICK BARTON

WARD 8: MARK BUTTERWORTH

WARD 9: BRIAN HORNER

AT-LARGE: MARY M. CIRELLI

AT-LARGE: JOE COLE

AT-LARGE: BILL SMUCKLER

COUNCIL PRESIDENT: ALLEN SCHULMAN

SCALES

P 1137—WAYNESBURG DR ANITARY SEWER REHABIL FOR: THE CITY OF CANT N THE CITY OF CANTON/CAN

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2008 SPECIFICATIONS

THE WORK UNDER THIS PROJECT SHALL COMPLY WITH THE GENERAL, SUPPLEMENTAL AND TECHNICAL SPECIFICATIONS PROVIDED WITH THE CONTRACT, THE CITY OF CANTON, STANDARD CONSTRUCTION DRAWINGS AND THE LATEST EDITION OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, CONSTRUCTION AND MATERIAL SPECIFICATIONS.

ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.

I. PRECONSTRUCTION INCIDENTALS

(A) PROJECT SPECIFICATIONS/REQUIREMENTS:

ALL WORK REQUIRED TO COMPLETE THIS IMPROVEMENT SHALL BE PERFORMED IN ACCORDANCE WITH SPECIFICATIONS/REQUIREMENTS OF THE CITY OF CANTON AND THE LATEST EDITION OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, EXCEPT AS HEREIN AMENDED. IN THE CASE OF A CONFLICT BETWEEN THE CITY OF CANTON AND THE OHIO DEPARTMENT OF TRANSPORTATION SPECIFICATIONS/REQUIREMENTS, THE CITY OF CANTON REQUIREMENTS WILL TAKE PRECEDENCE, UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER.

THE CONTRACTOR SHALL COMPLY WITH THE CITY OF CANTON SUPPLEMENTAL SPECIFICATION 01-00 PROJECT DOCUMENTATION AND SUBMITTAL REQUIREMENTS.

(B) ADMINISTRATIVE REQUIREMENTS:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FULLY COMPLYING WITH ALL THE ADMINISTRATIVE DUTIES HEREIN CONTAINED.

THE CONTRACTOR SHALL DESIGNATE TO THE CITY AN EMPLOYEE RESPONSIBLE FOR CORRESPONDENCE, NOTIFICATIONS, AND SUBMITTALS PERTINENT TO THE PROJECT.

(C) PRECONSTRUCTION MEETING:

A PRECONSTRUCTION MEETING WITH THE CONTRACTOR,
REPRESENTATIVES OF ALL UTILITY COMPANIES, THE CITY OF
CANTON ENGINEERING DEPARTMENT AND THE CITY OF CANTON
WATER DEPARTMENT IS REQUIRED FOR THIS PROJECT PRIOR TO
THE START OF ANY CONSTRUCTION ACTIVITY.

FOR CITY GENERAL PROJECTS, THE CITY ENGINEER WILL CONTACT THE CONTRACTOR TO ARRANGE A MEETING DATE. THE CITY ENGINEER WILL CONTACT THE ABOVE AGENCIES TO CONFIRM THE MEETING DATE.

(D) PROJECT SAFETY:

THE CONTRACTOR SHALL MAINTAIN A SAFE WORKING ENVIRONMENT AT THE PROJECT SITE AT ALL TIMES. THE CONTRACTOR SHALL PROPERLY SUPPORT AND/OR MAINTAIN ALL EXCAVATIONS PER APPLICABLE SAFETY REQUIREMENTS AND COMPLY WITH ALL O.S.H.A. REGULATIONS. ADEQUATE BARRICADES, WARNING LIGHTS, SIGNS, FENCING, ETC. SHALL BE ERECTED AROUND THE CONSTRUCTION AREA DURING ALL NON-WORKING HOURS TO ALERT PERSONS OF THE POTENTIAL DANGER ASSOCIATED WITH THE AREA UNDER CONSTRUCTION AS WELL AS TO PREVENT ACCESS BY UNAUTHORIZED PERSONNEL TO THE CONSTRUCTION SITE/AREA. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THE SAFETY OF THE GENERAL PUBLIC AS WELL AS ALL CONSTRUCTION PERSONNEL. PUBLIC STREETS SHALL BE KEPT CLEAN AND FREE OF DEBRIS (MUD, STONE, ETC.) AT ALL TIMES. THE CONTRACTOR SHALL ALERT ALL LOCAL EMERGENCY AGENCIES (FIRE, POLICE, AMBULANCE, ETC.) OF THE NATURE OF THE PROPOSED PROJECT PRIOR TO BEGINNING AND CONSTRUCTION ACTIVITY. ACCESS FOR EMERGENCY VEHICLES SHALL BE MAINTAINED AT ALL TIMES.

(E) UNDERGROUND UTILITIES:

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THE PLANS WERE OBTAINED BY FIELD OBSERVATIONS, FROM EXISTING RECORDS, AND/OR FROM THE OWNERS OF THE RESPECTIVE UTILITIES. THE INFORMATION AS SHOWN IS BELIEVED TO BE CORRECT; HOWEVER, THE COMPLETENESS AND ACCURACY OF THIS INFORMATION CANNOT BE GUARANTEED. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT ALL THE VARIOUS UTILITY COMPANIES (PUBLIC AND PRIVATE) TO VERIFY THE EXISTENCE, LIMITS AND/OR LOCATION OF ANY UTILITIES WHICH MAY BE ALONG THE ROUTE OR WITHIN THE VICINITY OF THIS IMPROVEMENT.

(F) UTILITY NOTIFICATION:

AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING OPERATIONS ON THIS PROJECT, THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER, THE REGISTERED UTILITY PROTECTION AGENCY/SERVICE, AND THE OWNERS OF ANY OTHER UTILITIES (PUBLIC AND/OR PRIVATE) THAT MAY HAVE UTILITY LINES OR FACILITIES WITHIN THE VICINITY OF THIS PROJECT BUT WHO ARE NOT MEMBERS OF THE REGISTERED UTILITY PROTECTION SERVICE. THE OWNERS OF ANY UNDERGROUND UTILITY FACILITY SHALL, WITHIN 48 HOURS AFTER NOTICE IS RECEIVED, EXCLUDING SATURDAYS, SUNDAYS AND OTHER LEGAL HOLIDAYS; STAKE, MARK OR OTHERWISE DESIGNATE THE EXISTENCE AND/OR LOCATION OF THE UNDERGROUND UTILITY FACILITIES IN THE CONSTRUCTION AREA IN SUCH A MANNER AS TO INDICATE THEIR COURSE TOGETHER WITH THE APPROXIMATE DEPTH AT WHICH THEY WERE INSTALLED. THE MARKING AND/OR LOCATING SHALL BE COORDINATED TO STAY APPROXIMATELY TWO WORKING DAYS AHEAD OF THE PLANNED CONSTRUCTION.

OHIO UTILITIES PROTECTION SERVICE: 1-800-362-2764 (CONTACT

THE PRIMARY UTILITIES WITHIN THE CITY OF CANTON AREA:

NATURAL GAS
DOMINION EAST OHIO GAS
DISTRIBUTION & TRANSMISSION
320 SPRINGSIDE DRIVE
AKRON, OHIO 44333
330-664-2409
ATTN: MARY LONG
EMERGENCY NO.
1-800-521-4400

COMMUNICATIONS CABLE TIME WARNER CABLE 5520 WHIPPLE AVE N.W. NORTH CANTON, OHIO 44720 330-494-9200, EXT. 87 ATTN: TIM KNIGHT

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2664 HARRISBURG RD. N.E.
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330-489-3310
ATTN: LEWI MILLER

ODOT DISTRICT 4 2088 SOUTH ARLINGTON ROAD AKRON, OHIO 44306 800-603-1054 ATTN: KEN GREENE TELEPHONE
AT&T
50 WEST BOWER STREET
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330-384-8057
ATTN: JIM BUETEL
EMERGENCY NO. - 24 HRS.
1-800-572-4545 OPTION#4

ELECTRIC
AMERICAN ELECTRIC POWER
301 CLEVELAND AVE. S.W.
P.O. BOX 24400
CANTON, OHIO 44701-4400
330-438-7762
ATTN: KEN HUOT
EMERGENCY NO.
1-800-672-2017

SANITARY SEWER
STARK COUNTY SANITARY
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CANTON TOWNSHIP
ROAD SUPERINTENDANT
4711 CENTRAL AVE. S.E.
CANTON, OHIO 44707
330-484-2501
ATTN: TOM HEWITT

THE CITY ENGINEER'S OFFICE IS TO BE CONTACTED DIRECTLY FOR SANITARY SEWER, STORM SEWER AND TRAFFIC INTERCONNECT FACILITIES LOCATION: 330-489-3381.

(G) <u>PROPOSED PUBLIC UTILITY LOCATION IN PROPOSED</u> SUBDIMISIONS:

THE CONTRACTOR AND REPRESENTATIVES OF THE CITY OF CANTON SHALL MEET WITH REPRESENTATIVES OF THE VARIOUS PUBLIC UTILITY COMPANIES (EAST OHIO GAS, AMERICAN ELECTRIC POWER, AT&T, WARNER CABLE, ETC.) TO DETERMINE THE APPROPRIATE LOCATION FOR THESE UTILITIES WITHIN THE PROJECT SITE. ONCE AN AGREEMENT HAS BEEN REACHED, IT SHALL BE THE RESPONSIBILITY OF THE UTILITY OWNERS TO INSPECT THE INSTALLATION OF THE VARIOUS PUBLIC UTILITY LINES WITHIN THE ROAD RIGHT—OF—WAY TO ENSURE THAT CONFLICTS ARE AVOIDED AND ADEQUATE CLEARANCE AND OFFSETS WITH OTHER UTILITIES ARE MAINTAINED. UTILITY COMPANIES SHALL SUBMIT PLANS INDICATING THEIR PROPOSED IMPROVEMENTS AND FACILITIES TO THE CITY OF CANTON FOR APPROVAL. THE SITE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE INSTALLATION OF THE OTHER UTILITIES NOT OWNED BY THE CITY.

(H) EXPLORATORY BORINGS;

EXPLORATORY SOIL BORING INFORMATION IS NOT THE RESPONSIBILITY OF THE CITY OF CANTON. IT IS THE CONTRACTOR RESPONSIBILITY TO REVIEW ANY AND ALL INFORMATION AVAILABLE. IF CONTRACTOR REQUESTS TO DRILL AND OR EXCAVATE WITHIN THE CITY'S R/W, THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER AT LEAST 3 WORKING DAYS PRIOR TO THIS WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITY NOTIFICATION, AS SPECIFIED, ALL TRAFFIC CONTROL, PREMIUM BACKFILL, COMPACTION AND RESTORATION, AS NECESSARY.

(I) CONTINGENCY QUANTITIES:

WHEN SPECIFIED ON PLANS OR SPECIFICATIONS, CONTINGENCY QUANTITIES ARE TO BE PERFORMED ONLY UNDER DIRECTION OF THE CITY ENGINEER. THE CONTRACTOR SHALL NOT ORDER ANY CONTINGENCY MATERIAL OR PERFORM ANY WORK UNTIL DIRECTED BY THE ENGINEER. THE ACTUAL WORK LOCATION AND QUANTITIES FOR SUCH ITEMS SHALL BE DOCUMENTED BY THE CONTRACTOR AND THE ENGINEER.

II. CONSTRUCTION INCIDENTALS

(A) PLAN DISCREPANCIES:

ANY DISCREPANCIES FROM THE PLAN INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER SO THAT THE APPROPRIATE ADJUSTMENTS IN ALIGNMENT AND/OR GRADE MAY BE MADE PRIOR TO THE START OF CONSTRUCTION OR THE CONTINUATION OF THE ABOVE..

FAILURE BY THE CONTRACTOR TO VERIFY AND/OR DETERMINE EXISTING INFORMATION AS INDICATED WILL RESULT IN THE CONTRACTOR BEING RESPONSIBLE FOR ANY CHANGES NECESSARY TO COMPLETE THE WORK SPECIFIED WITHOUT ADDITIONAL COMPENSATION.

(B) VERIFICATION OF UNDERGROUND UTILITIES:

THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE EXISTENCE AS WELL AS THE ACTUAL LOCATION, ALIGNMENT, AND ELEVATIONS OF ALL EXISTING UTILITIES/FACILITIES WITHIN AND/OR ADJACENT TO THE GENERAL LIMITS OF THESE IMPROVEMENTS INCLUDING WATERLINES, SANITARY AND STORM SEWERS, GAS LINES, COMMUNICATION LINES/BANKS, ELECTRIC LINES, ETC. THIS MAY REQUIRE EXPLORATORY EXCAVATIONS TO BE PERFORMED BY THE CONTRACTOR FOR WHICH HE WILL NOT BE REIMBURSED. THE CONTRACTOR SHALL NOT ASSUME THAT EXISTING UTILITIES/CONDUITS WERE INSTALLED AT TYPICAL/STANDARD DEPTHS OR AT UNIFORM SLOPES/GRADES/DEPTHS BETWEEN ACCESS POINTS (CATCH BASINS, MANHOLES, JUNCTION CHAMBERS, ETC.)

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO INSTALL THE PROPOSED CONDUIT.

(C) PROTECTION OF UTILITIES:

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT AND SUPPORT EXISTING UTILITIES ENCOUNTERED DURING THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS AS APPROVED BY THE OWNERS OF THE UTILITY AND THE CITY ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE TO CLOSELY COORDINATE THEIR WORK WITH ALL UTILITY COMPANIES, ANY POTENTIAL DELAYS WILL NOT BE THE RESPONSIBILITY OF THE CITY.

THE CONTRACTOR SHOULD EXPECT AT A MINIMUM ONE SANITARY SEWER LATERAL, ONE ROOF DRAIN, ONE WATER SERVICE, AND ONE GAS SERVICE FOR EACH LOT. ANY OF THE ABOVE UTILITIES DAMAGED DUE TO THE CONTRACTOR'S WORK SHALL BE RESTORED TO THE UTILITY OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.

(D) MAINTENANCE OF UTILITY SERVICES:

THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN UTILITY SERVICES AT ALL TIMES.

WATER SERVICE MAY BE INTERRUPTED FOR LIMITED PERIODS (4 HOURS MAXIMUM) DURING CONNECTION BETWEEN EXISTING WATER LINES AND RELOCATED/NEW WATER MAINS WHICH CANNOT BE COMPLETED OTHERWISE. NO SHUT DOWN SHALL OCCUR WITHOUT WRITTEN PERMISSION OF THE CITY OF CANTON WATER DEPARTMENT. PROPERTY OWNERS AFFECTED BY APPROVED INTERRUPTED SERVICE SHALL BE NOTIFIED 48 HOURS IN ADVANCE BY THE CONTRACTOR.

STORM SEWER AND SANITARY SEWER SERVICES SHALL BE MAINTAINED WITHOUT INTERRUPTION, UNLESS APPROVED BY THE CITY ENGINEER.

IN THE EVENT THAT CONSTRUCTION DISRUPTS THE FLOW OF A SANITARY SEWER, THE CONTRACTOR SHALL IMMEDIATELY RECTIFY THE DISRUPTED SEWER BY EITHER TEMPORARILY FLUMING WITH MATERIALS ACCEPTABLE TO THE ENGINEER OR BYPASSING WITH PUMPS. COST OF MAINTAINING AND REPAIR OF SANITARY SEWERS DISTURBED BY CONSTRUCTION SHALL BE AT THE CONTRACTOR'S EXPENSE.

(E) CONSTRUCTION NOISE:

CONSTRUCTION NOISE ASSOCIATED WITH ANY IMPROVEMENT PROJECT, SHALL BE LIMITED TO LEVELS COMMENSURABLE WITH ADJOINING LAND AND THEIR ASSOCIATED USAGE AS DETERMINED BY THE CITY ENGINEER. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, ANY POWER-OPERATED CONSTRUCTION—TYPE DEVICE SHALL NOT BE OPERATED BETWEEN THE HOURS OF 7:00 P.M. AND 7:00 A.M., UNLESS AUTHORIZED BY THE CITY ENGINEER.

(F) OPEN TRENCH CONSTRUCTION:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION /TRENCHING PRACTICES FOR THE PROPOSED IMPROVEMENT, OR AS FURTHER SHOWN ON THE PLANS AND SPECIFICATIONS.

THE CONTRACTOR SHALL FOLLOW ALL LOCAL AND STATE REGULATION, INCLUDING FEDERAL REGULATION, PART 1926, SUBPART P FOR ALL APPLICABLE REQUIREMENTS AND RESPONSIBILITIES

PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER OF THE PROJECT'S ASSIGNED "COMPETENT PERSON" IN OSHA EXCAVATION STANDARDS.

(G) TRENCH CLOSING AND TEMPORARY TOPPING:

THE CONTRACTOR SHALL BE RESPONSIBLE TO DETERMINE THE NECESSARY LEVELS OF PROTECTION AND SAFEGUARDING OF ALL OPEN TRENCHES, WHEN WORK IS EITHER COMPLETED AT THE END OF THE DAY OR SUSPENDED FOR ANY OTHER REASON.

AS A MINIMUM, THE CITY REQUIRES ALL TRENCHES TO BE TOPPED WITH 4" OF ODOT 304 LIMESTONE FOR TRENCHES WITHIN EXISTING ROADWAY PAVEMENTS WHEN THE ROADWAY WILL BE OPENED TO VEHICULAR TRAFFIC PRIOR TO PAVEMENT REPLACEMENT.

THE TRENCH TOPPING MATERIAL SHALL BE ROLLED OR OTHERWISE COMPLETED AND BE FURNISHED FLUSH WITH THE EXISTING ADJOINING PAVEMENT.

(H) DUST CONTROL:

THE CONTRACTOR SHALL FURNISH AND APPLY WATER AND CALCIUM CHLORIDE FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. SUFFICIENT QUANTITIES OF CALCIUM CHLORIDE SHALL BE STORED ON THE JOB SITE AT ALL TIMES TO BE USED FOR DUST CONTROL.

© HAMMONTRE & ASSOC ENGHERS, EVANES, SI ENGHERS, PANHES, SI CANTON CANDA, SANDA, TOU TON CANDA, SANDA, TOU TON CANDA, SANDA,

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GENERAL NOTES
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CONSTRUCTION INCIDENTALS (continued)

(I) TESTING OF UTILITIES:

ALL NEWLY CONSTRUCTED WATERLINES AND SANITARY SEWERS (INCLUDING LATERALS) MUST BE INSTALLED AND TESTED IN ACCORDANCE WITH APPLICABLE STANDARDS (AWWA, ETC.), PER THE OHIO ENVIRONMENTAL PROTECTION AGENCY AND PER THE REQUIREMENTS OF THE CITY OF CANTON CITY AND WATER ENGINEERING DEPARTMENT.

(J) PRESERVATION OF EXISTING STRUCTURES:

THE CONTRACTOR SHALL PERFORM WORK SO AS TO NOT DISTURB. DAMAGE OR DESTROY ANY MAILBOX. PAPER BOX. TELEPHONE OR POWER POLES, SIGNS, FENCES, RETAINING WALLS, LANDSCAPING ITEMS, ETC. ANY ITEM DAMAGED SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. ANY ITEM DISTURBED OR IN CONFLICT WITH THE WORK TO BE PERFORMED SHALL BE REMOVED AND RESET AT THE CONTRACTOR'S EXPENSE UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIFICATIONS.

(K) SALVAGED CASTINGS:

WHEN DIRECTED BY THE CITY ENGINEER, ALL CASTINGS SHALL BE CAREFULLY REMOVED AND STORED ON SITE OR DELIVERED TO A LOCATION DESIGNATED BY THE CITY ENGINEER.

(L) PLUG EXISTING CONDUIT:

THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF BULKHEADS IN AN EXISTING CONDUIT TO BE ABANDONED.

BULKHEADS SHALL CONSIST OF BRICK AND/OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

PAYMENT FOR PLUGGING OF EXISTING CONDUIT FOR ABANDONMENT SHALL BE INCLUDED IN THE UNIT BID OF THE VARIOUS ITEMS OF THE PROJECT.

(M) CONSTRUCTION LAYOUT:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION LAYOUT UTILIZING PERTINENT PLAN DATA. THE CITY ENGINEER WILL NOT BE RESPONSIBLE FOR STAKING HORIZONTAL OR VERTICAL CONTROL. CONSTRUCTION LAYOUT SHALL BE IN ACCORDANCE WITH ODOT 623 CONSTRUCTION

AT THE CITY ENGINEER'S REQUEST THE CONTRACTOR SHALL MAKE AVAILABLE ALL SURVEY FIELD NOTES FOR REVIEW.

(N) EXISTING MONUMENTATION:

THE CONTRACTOR SHALL PRESERVE ALL CORNERSTONES, IRON PINS. CONCRETE MONUMENTS AND/OR ANY TYPE OF LAND MONUMENT. (HE SHALL HAVE ALL MONUMENTS IN THE PROXIMITY OF THE WORK REFERENCED.) THE CONTRACTOR SHALL REPLACE/RESET ANY DISTURBED OR DAMAGED MONUMENTS AND SHALL FURNISH A CERTIFICATION BY A REGISTERED SURVEYOR THAT THE MONUMENTS HAVE BEEN RESTORED.

(O) ELEVATION DATUM:

ALL ELEVATIONS AREA BASED ON THE NAVD 1988 DATUM.

(P) DEWATERING OPERATIONS:

WHEN DEEMED NECESSARY, THE CONTRACTOR MAY INSTALL DEWATERING EQUIPMENT PRIOR TO THE COMMENCEMENT OF

THE PROPOSED LOCATION OF WELL POINTS, HEADER PIPE, ELECTRICAL DISTRIBUTION, GENERATORS AND DISCHARGE PIPES, ETC. SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS FOR THE INSTALLATION AND SUBSEQUENT REMOVAL OF DEWATERING EQUIPMENT AS MAY BE NECESSARY PER STATE

INSTALLATION OF ALL ELECTRICAL EQUIPMENT, INCLUDING GROUNDING AND PROTECTION SHALL BE THE RESPONSIBILITY OF

CONTRACTOR SHALL PROVIDE ALL COMBUSTIBLE ENGINE DRIVEN GENERATORS WITH "HOSPITAL GRADE" MUFFLERS. MUFFLERS SHALL BE RATED, AT A MAXIMUM OF 67 dB AT 23 FEET AWAY RUNNING FULL LOAD.

(Q) INSPECTION:

ALL WORK REQUIRED FOR THIS IMPROVEMENT SHALL BE SUBJECT TO INSPECTION BY THE CITY OF CANTON OR THEIR DESIGNATED REPRESENTATIVE. THE CONTRACTOR SHALL GIVE A 48 HOUR NOTICE BEFORE STARTING ANY WORK ON THIS PROJECT AND SHALL KEEP THE CITY INFORMED OF HIS/HER CONSTRUCTION SCHEDULE. NO WORK SHALL BE PERFORMED UNLESS AN AUTHORIZED INSPECTOR IS PRESENT.

(R) FIELD OFFICE: (NOT REQUIRED)

THE CONTRACTOR SHALL PROVIDE A FIELD OFFICE IN ACCORDANCE WITH ODOT 619. THE FIELD OFFICE SHALL BE TYPE 'A', UNLESS OTHERWISE SPECIFIED.

EARTHWORK / SITE WORK

(A) EASEMENTS AND RIGHT-OF WAY:

THE CONTRACTOR SHALL STAY WITHIN THE PROPERTIES. EASEMENTS, AND/OR RIGHT-OF-WAY PROVIDED AT ALL TIMES. NO MATERIAL SHALL BE STORED NOR ANY WORK PERFORMED ON PRIVATE PROPERTY. DISTURBANCE OF EXISTING FEATURES AND/OR IMPROVEMENTS SHALL BE KEPT TO AN ABSOLUTE MINIMUM AND AS APPROVED BY THE CITY ENGINEER/PROPERTY

(B) SUITABILITY OF SITE:

THE CITY OF CANTON WILL NOT BE RESPONSIBLE FOR THE TYPE AND/OR SUITABILITY OF THE MATERIAL UNDERLYING THE PROJECT SITE. THE CONTRACTOR MUST APPRAISE THEMSELVES OF ANY EXISTING SITE CONDITIONS WHICH MAY AFFECT THEIR BID OR THE PERFORMANCE OF THE REQUIRED WORK. THE CONTRACTOR SHALL PERFORM ANY INVESTIGATIONS AND/OR TESTING NECESSARY TO ADEQUATELY DETERMINE/ESTIMATE TO THEIR SATISFACTION OF ALL SITE CONDITIONS WHICH COULD AFFECT THE PERFORMANCE OF THE PROPOSED IMPROVEMENTS. THIS COULD INCLUDE BUT NOT BE LIMITED TO UNSUITABLE AND/OR UNSTABLE SOIL/SUBSURFACE CONDITIONS, ROCK, WATER (PERCHED OR FREE), SPRINGS, ETC.

(C) REMOVAL/REPLACEMENT OF UNSUITABLE MATERIAL:

THE CONTRACTOR SHALL UNDERCUT AND REPLACE UNSUITABLE MATERIAL ENCOUNTERED DURING INSTALLATION OF THE PROPOSED UTILITIES AND ROADWAY IN ACCORDANCE WITH O.D.O.T. ITEM No. 603 AND 203, OR AS FURTHER DESCRIBED

IF PLANS ALLOW FOR A CONTINGENCY ITEM FOR SUCH REMOVAL/REPLACEMENT, THE CITY WILL DOCUMENT THE LOCATION OF AREAS OF SUCH REMOVAL/REPLACEMENT FOR FINAL QUANTITY TABULATION.

D) RESTORATION OF DISTURBED AREAS:

EXISTING DRIVES, BERMS, LAWNS, PAVEMENTS, CURBS, SIDEWALKS, SIGNS, MAILBOXES OR OTHER APPURTENANCES DISTURBED DURING CONSTRUCTION BUT NOT SPECIFICALLY DESIGNATED FOR REMOVAL/REPLACEMENT SHALL BE RESTORED TO A CONDITION EQUAL TO THAT WHICH EXISTED PRIOR TO CONSTRUCTION AND TO THE COMPLETE SATISFACTION OF THE CITY ENGINEER. RESTORATION OF EXISTING ROADWAYS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY, TOWNSHIP, COUNTY, AND/OR OTHER AGENCIES HAVING AUTHORITY. COST FOR THE RESTORATION OF THESE ITEMS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. NO PUBLIC ROADWAY SHALL BE DISTURBED WITHOUT PRIOR WRITTEN APPROVAL FROM THE GOVERNING AGENCY AND ACQUISITION OF NECESSARY

IV. ROADWAY / PAVEMENT / WALK / CURB

PAVEMENTS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH CITY STANDARD DRAWINGS AND APPLICABLE ODOT SPECIFICATIONS, UNLESS SPECIFIED OTHERWISE ON THE PLANS.

(A) AGGREGATE BASE. AS PER PLAN:

THE REQUIREMENTS OF ODOT 304 SHALL APPLY; DEVIATIONS FROM THIS ARE AS FOLLOWS;

NO OPEN HEARTH BASIC-OXYGEN STEEL OR GRANULAR SLAG SHALL BE PERMITTED.

(B) CONCRETE WALK AND DRIVE APPROACHES AS PER PLAN:

THE REQUIREMENTS OF ODOT 608 CONCRETE WALKS AND RAMPS SHALL APPLY; DEVIATIONS FROM THIS ARE AS FOLLOWS:

- CONCRETE MIX COARSE AGGREGATE SHALL BE LIMESTONE
- EXPANSIONS JOINTS (1/2") SHALL BE PLACED AT THE TRANSVERSE JOINTS OF THE WALK AT INTERVALS NOT TO EXCEED 30 FEET IN LENGTH.
- COLD WEATHER PRACTICES SHALL BE SUBMITTED BY THE CONTRACTOR TO THE CITY ENGINEER FOR APPROVAL. CONTRACTOR SHALL PLACE AND PROTECT ALL CONCRETE IN ACCORDANCE WITH LATEST EDITION OF ACI 306.

(C) CAST IN PLACE CONCRETE CURB. AS PER PLAN:

REQUIREMENTS OF ODOT 609 SHALL APPLY; DEVIATIONS FROM

- 1. CONCRETE MIX COARSE AGGREGATE SHALL BE LIMESTONE
- 2. CONSTRUCTION JOINTS FOR STAND-UP CURB AND COMBINATION CURB/GUTTER SHALL BE DOWELED. DOWELS SHALL BE (2) #5 BAR, 18" IN LENGTH EQUALLY SPACED.
- 3. COLD WEATHER PRACTICES SHALL BE SUBMITTED BY THE CONTRACTOR TO THE CITY ENGINEER FOR APPROVAL. CONTRACTOR SHALL PLACE AND PROTECT ALL CONCRETE I N ACCORDANCE WITH LATEST EDITION OF ACI 306.
- CURB SHALL BE CORED OR SLEEVED 3-1/2" FOR 3" DRAIN OUTLETS AT THE LOCATIONS DETERMINED BY CITY ENGINEER OR DEVELOPER, OR AS SPECIFIED ON PLAN. NOTCH CUTTING OF CURB IS PROHIBITED.

(D) DROP CURB AT DRIVEWAYS:

THE CONTRACTOR SHALL PROVIDE DROP CURB FOR ALL PROPOSED DRIVEWAYS AT THE TIME THE CONCRETE CURB IS POURED. DROP CURBS SHALL CONFORM TO CITY STANDARD DRAWING NO. 41.

WHEN THE LOCATIONS OF DRIVES ARE NOT KNOWN AT THE TIME OF CURB CONSTRUCTION, THE DROPS MAY BE SAW CUT WITH THE CITY ENGINEER'S APPROVAL

(E) WHEELCHAIR RAMPS:

WHEELCHAIR RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ODOT STANDARD CONSTRUCTION DRAWING BP-7.1 "CURB RAMPS WITH TRUNCATED DOMES" AND USE OF WHITACRE GREER ADA PAVER, CLEAR RED (RUSTIC) #30.

(F) RESTRICTED WORK SCHEDULE:

NO CONCRETE FINISH WORK OR PERMANENT ASPHALT SHALL BE PLACED FROM NOVEMBER 15TH TO APRIL 15TH UNLESS WRITTEN APPROVAL IS GRANTED BY THE CITY ENGINEER.

(G) ASPHALT/CONCRETE:

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER 48 HOURS IN ADVANCE OF BEGINNING WORK WHICH REQUIRES COMPACTION TESTING AND/OR PRE-POUR INSPECTION PRIOR TO PLACEMENT OF ASPHALT OR CONCRETE. WORK WILL NOT PROCEED UNTIL TESTING AND/OR INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE CITY ENGINEER.

SCALES HORIZ: N/A VERT: N/A CONTOUR, INT: N/A

HAMMONTREE & ENGINEERS, PLANS

37—WAYNESBURG DRIVE SE
NEY SEWER REHABILITATION
R: THE CITY OF CANTON
TO CE CITY OF CANTON TOWN
14 NW, STARK COUNTY, OHIO GP 1137-SANITARY FOR: T

≥ 5

(3)

(A) BEDDING:

BEDDING SHALL BE AASHTO M 43, NUMBERS 56, 57, OR 67 LIMESTONE OR ANGULAR <u>CRUSHED</u> GRAVEL STONE. BEDDING SHALL EXTEND THE FULL WIDTH OF THE TRENCH. TRENCH WIDTH SHALL BE THE OUTSIDE DIAMETER OF PIPE PLUS 12" ON BOTH SIDES OF THE PIPE. FOR REINFORCED CONCRETE PIPE CONDUIT THE BEDDING SHALL EXTEND 3" BELOW THE BOTTOM OF PIPE AND FLUSH WITH THE TOP OF PIPE. FOR ALL OTHER SEWER CONDUITS THE BEDDING SHALL EXTEND 6" BELOW THE BOTTOM OF PIPE AND 12" ABOVE THE PIPE.

BEDDING CLASSES A, B, C,, OR CRUSHED GRAVEL STONE AS DESCRIBED IN ASTM C12 SHALL BE USED AND CAREFULLY COMPACTED FOR ALL RIGID PIPE.

EMBEDMENT MATERIALS FOR BEDDING, HAUNCHING AND INITIAL BACKFILL, CLASS I, II, OR III, AS DESCRIBED IN ASTM D2321, SHALL BE USED AND CAREFULLY COMPACTED FOR ALL FLEXIBLE PIPE.

(B) BACKFILL WITHIN THE RIGHT-OF-WAY:

BACKFILL MATERIAL SHALL BE IN ACCORDANCE WITH ODOT 703.11, TYPE '1' GRANULAR MATERIAL (304, 411, or 617 AGGREGATE GRADATION). DEVIATIONS FROM THIS ARE AS FOLLOWS:

- NO FOUNDRY SAND, AIR COOLED BLAST FURNACE SLAG, GRANULATED SLAG, OR OPEN HEARTH SLAG SHALL BE PERMITTED.
- 2. ANY EXCEPTION TO THE TYPE '1' GRANULAR MATERIAL SHALL BE WITH THE SUPPLEMENTAL APPROVAL OF THE CITY ENGINEER. FOR SUCH SUPPLEMENTAL APPROVAL THE CONTRACTOR SHALL SUBMIT IN WRITING THE FOLLOWING:
 - a.) SOURCE OF THE ALTERNATE BACKFILL MATERIAL.
 - b.) GRADATION REPORT IN ACCORDANCE WITH AASHTO T III AND T 27.
 - c.) PROCTOR CURVE ANALYSIS IN ACCORDANCE WITH ASTM D 698.
 - d.) PROPOSED COMPACTION METHOD.

THE CITY RESERVES THE RIGHT TO REFUSE ANY ALTERNATE BACKFILL MATERIAL THE CITY FINDS NOT CONSISTENT WITH THE MATERIAL PREVIOUSLY APPROVED BY THE CITY ENGINEER.

BACKFILL METHODS SHALL BE IN ACCORDANCE WITH ODOT 603; DEVIATION FROM THIS ARE AS FOLLOWS:

- 1. CONTRACTOR MAY REQUEST TO EXCEED 8" PLACEMENT LIFTS DURING BACKFILL PROCEDURE, GREATER LIFT SIZE IS SUBJECT TO THE CITY ENGINEER'S APPROVAL BASED ON THE CONTRACTOR'S PROPOSED COMPACTION METHOD AND THE BACKFILL MATERIAL.
- (C) BACKFILL OUTSIDE THE RIGHT-OF-WAY:

BACKFILL MATERIAL AND COMPACTION SHALL BE IN ACCORDANCE WITH DETAIL ON SHEET 6 OF THE PLANS. RESTORATION OF THE STREAM BED, SUBSTRATES, SLOPES AND BANKS SHALL FOLLOW NOTE ON SHEET 10.

(D) MANHOLES:

PRECAST CONCRETE MANHOLES SHALL BE IN ACCORDANCE WITH ODOT 604 AND ODOT STANDARD CONSTRUCTION DRAWING MH-3 (NOTE: THIS INCLUDES ALL REQUIREMENTS OF ASTM C-478, PER ODOT 706.13). DEVIATIONS FROM THIS ARE AS FOLLOWS:

- 1. ALL MANHOLE SECTIONS SHALL HAVE 6 ± 2 PERCENT AIR IN THE HARDENED CONCRETE.
- PRECAST BASE SHALL HAVE EXTENDED BASE OF 6" AROUND OUTSIDE CIRCUMFERENCE OF MANHOLE.
- GRADE RINGS SHALL BE SET IN MORTAR AND SHALL NOT EXCEED 12".
- GRADE RINGS, IF BRICK, SHALL BE BELDEN BRICK CO. (FINE GRIND) OR EQUAL AND MEET ASTM C32-90.
- MORTAR TO BE AIR ENTRAINED, HIGH STRENGTH QUALITY UNLESS OTHERWISE SPECIFIED.
- 5. UNIONS IN RISER SECTIONS SHALL USE RUBBER GASKETS
 PER ASTM C-443

(D) MANHOLES (CONTINUED):

BRICK MANHOLES (STORM SEWER ONLY) SHALL BE IN ACCORDANCE WITH ODOT 604 AND ODOT STANDARD CONSTRUCTION DRAWING MH-1 DEVIATIONS FROM THIS ARE AS FOLLOWS:

- 1. CONCRETE BRICK AND CONCRETE MASONRY BLOCK ARE PROHIBITED FROM THE MATERIAL SECTION.
- BRICK SHALL BE MANUFACTURED BY BELDEN BRICK (FINE GRIND) OR EQUAL. BRICK SHALL MEET ASTM C32-93.
- 3. MORTAR TO BE AIR ENTRAINED, HIGH STRENGTH QUALITY UNLESS OTHERWISE SPECIFIED.

MANHOLE BASE SHALL BE PLACED ON A MINIMUM OF 6" OF #57 STONE BEDDING.

ALL EXCAVATED AREAS SHALL BE BACKFILLED WITH ODOT 703.11, TYPE '1' GRANULAR MATERIAL. BACKFILL METHODS IN ACCORDANCE WITH ODOT 603.081.

CASTINGS AS PER CITY STANDARD DRAWING # 19.

DISTANCE BETWEEN TOP OF MANHOLE CASTING AND THE TOP STEP SHALL NOT EXCEED 30".

MANHOLE STEPS SHALL BE POLYPROPYLENE IN ACCORDANCE WITH ASTM 2146-68.

CHANNELS SHALL BE CONSTRUCTED WITH CLASS 'C' CONCRETE WITH A FINISHED SMOOTH SURFACE MAINTAINING POSITIVE FLOW FROM INLET TO OUTLET.

WHEN SPECIFIED ON THE PLANS, DROP PIPES SHALL BE CONSTRUCTED FOR SANITARY CONDUITS WHICH CANNOT BE CONNECTED TO THE MANHOLE WITHIN 24 INCHES FLOW LINE TO FLOW LINE. DROP PIPES ARE TO BE CONSTRUCTED IN ACCORDANCE WITH CITY STANDARD DRAWING NO. 18 OR AS SHOWN ON THE PLANS.

(E) CATCH BASIN:

CATCH BASINS SHALL BE IN ACCORDANCE WITH ODOT 604, APPLICABLE ODOT CATCH BASIN STANDARD CONSTRUCTION DRAWINGS, AND APPLICABLE CITY CATCH BASIN STANDARD DRAWINGS AS PER PLAN. DEVIATIONS FROM ODOT SPECIFICATIONS ARE AS FOLLOWS:

- CONCRETE BRICK/BLOCK IS PROHIBITED FROM THE MATERIAL SELECTION.
- BRICK SHALL BE MANUFACTURED BY BELDEN BRICK (FINE GRIND) OR EQUAL. BRICK SHALL MEET ASTM C32-93 GRADENESS.
- MORTAR TO BE AIR ENTRAINED, HIGH STRENGTH QUALITY UNLESS OTHERWISE SPECIFIED.

BRICK CATCH BASINS SHALL INCLUDE:

- 1. ALL INSIDE JOINTS TO BE STRUCK AND CLOSED.
- (ONE) 4" DIAMETER INLET PIPE SITUATED AWAY FROM THE ROAD SIDE OF THE BASIN.
- PLASTER OUTSIDE WALLS WITH HIGH STRENGTH MORTAR, 1/2" THICK.

ALL CATCH BASINS SHALL BE PLACED ON 6" OF #57 STONE BEDDING.

ALL EXCAVATED AREAS SHALL BE BACKFILLED WITH ODOT 703.11, TYPE '1' GRANULAR MATERIAL. BACKFILL METHODS IN ACCORDANCE WITH ODOT 603.081.

ALL KNOCKOUTS FOR INLETS AND OUTLETS PIPING SHALL BE FASHIONED NEATLY. ALL ANNULAR SPACE TO BE FILLED WITH APPROVED BRICK AND MORTAR.

CHANNELS SHALL BE CONSTRUCTED WITH CLASS 'C' CONCRETE WITH A FINISHED SMOOTH SURFACE MAINTAINING POSITIVE FLOW FROM INLET TO OUTLET.

(F) UNDERDRAINS:

UNDERDRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ODOT 605 UNDERDRAINS; DEVIATIONS FROM THIS ARE AS FOLLOWS:

NO AIR—COOLED BLAST FURNACE SLAG SHALL BE

(G) ROOF DRAINS:

THE CONTRACTOR SHALL INSTALL TWO ROOF DRAINS PER LOT UNLESS OTHERWISE SPECIFIED ON THE PLANS OR DIRECTED BY THE CITY ENGINEER

THE ROOF DRAINS OUTLETS SHALL BE CORED OR SLEEVED THROUGH THE CURB. OPENING DIAMETER NO GREATER THAN 3-1/2" AND BOTTOM OF OPENING AT 1" ABOVE GUTTER.

THE CONTRACTOR SHALL INSTALL 3" PVC, SCHEDULE 40, CONDUIT FROM THE FACE OF THE CURB TO A POINT 1' BEYOND THE BACK OF WALK OR AT THE RIGHT—OF— WAY LINE, WHICHEVER IS GREATER.

CONTRACTOR SHALL PLACE A CONTROL JOINT IN THE SIDEWALK OVER THE ROOF DRAIN WHEN CONDUIT IS IN THE CONCRETE

CONNECTIONS TO EXISTING ROOF DRAINS SHALL BE MADE WITH NEOPRENE COUPLERS (ie FERNCO) AND STAINLESS STEEL CLAMPS

(H) SUMP PUMP DISCHARGE CONDUIT:

IF SUMP PUMP DISCHARGE CONDUIT IS INSTALLED WITHIN THE CITY'S RIGHT-OF-WAY, THE PIPING SHALL BE CONNECTED TO A NEW OR EXISTING STORM SEWER CONDUIT, CATCH BASIN, OR MANHOLE. CONNECTIONS TO A CONDUIT OR MANHOLE MUST HAVE A RELIEF DISCHARGE THROUGH THE CURB (SEE NOTE "G" ROOF DRAINS) AND/OR VENT STACK TO THE GROUND SURFACE, AS DEEMED NECESSARY BY THE CITY ENGINEER. ALL CONNECTIONS TO BE APPROVED BY THE CITY ENGINEER. ALL OTHER LOCATIONS OF DISCHARGE PIPING SHALL BE VERIFIED/APPROVED BY THE CITY'S BUILDING DEPARTMENT.

(I) SANITARY LATERAL CONNECTIONS:

ALL CONNECTIONS TO THE MAIN SEWER SHALL BE INSTALLED WITH A MANUFACTURED WYE.

THE MINIMUM SLOPE OF THE LATERALS SHALL BE 1/8" PER FT. (1%) AND THE MAXIMUM SHALL BE 1/4" PER FT. (2%) UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.

ALL NEW SANITARY LATERALS SHALL EXTEND 10 L.F. BEYOND THE ROAD RIGHT-OF-WAY AND SHALL HAVE A MINIMUM/MAXIMUM OF B' OF COVER AT THE RIGHT-OF-WAY, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.

WHEN THE DEPTH OF THE MAIN WOULD CAUSE A LATERAL TO EXCEED A 2% RATE OF GRADE, A LATERAL CONNECTION STACK SHALL BE INSTALLED AT THE MAIN . SAID STACK SHALL CONFORM TO CITY STANDARD DRAWING NO. 28.

ALL END OF LATERAL RUNS SHALL BE CAPPED W/SUITABLE AIR TIGHT PLUG AND MARKED UP TO 2' MINIMUM ABOVE GRADE WITH SUITABLE POSTS.

CONTRACTOR SHALL SUBMIT THE FOLLOWING DOCUMENTATION TO THE CITY ENGINEER FOR ALL LATERAL CONNECTIONS:

- 1. DISTANCE OF WYE FROM THE DOWNSTREAM MANHOLE.
- DISTANCE ALONG THE SEWER MAIN, FROM THE DOWNSTREAM MANHOLE TO THE LATERAL CONNECTION END.
- PERPENDICULAR DISTANCE FROM SEWER MAIN TO LATERAL CONNECTION END.
- DEPTH OF LATERAL CONNECTION END, FROM TOP OF PROPOSED/EXISTING CURB/ORIGINAL GROUND TO FLOW UNF

(J) TESTING:

SANITARY SEWERS SHALL BE TESTED BY CONTRACTOR IN ACCORDANCE WITH THE CITY OF CANTON'S SUPPLEMENTAL SPECIFICATION:

02-00 TESTING FOR EXCESSIVE DEFLECTION FOR NON-PRESSURE THERMOPLASTIC SEWER PIPE.

NOTE: DEFLECTION RATE SHALL NOT EXCEED FIVE PERCENT (5%) AND SHALL BE TESTED IN ACCORDANCE WITH ASTM D-3034.

03-00 TESTING PRACTICES FOR LOW-PRESSURE AIR TESTING
OF INSTALLED, NON-PRESURE, THERMOPLASTIC SEWER
PIPE.

NOTE: THE MAXIMUM ALLOWABLE TEST LEAKAGE SHALL BE 100 GALLONS/INCH OF DIAMETER/MILE/DAY

04-01 STANDARD TEST METHOD FOR CONCRETE SEWER MANHOLES BY THE NEGATIVE AIR PRESSURE TEST.

NOTE: MANHOLES SHALL BE TESTED IN ACCORDANCE WITH ASTM C-1244.

SANITARY AND STORM SEWERS CONSTRUCTED WITH THIS PROJECT SHALL BE TELEVISED (POST CONSTRUCTION) BY THE CONTRACTOR IN ACCORDANCE WITH CITY OF CANTON'S SUPPLEMENTAL SPECIFICATION:

05-01 CLOSED CIRCUIT TELEVISION (CCTV) INSPECTION AND DOCUMENTATION PROCEDURE.

(K) PROHIBITED CONNECTIONS:

ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE PROHIBITED.

(L) SANITARY SEWER PIPE;

SANITARY SEWER PIPE SHALL BE POLYVINYL CHLORIDE SOLID WALL PIPE IN ACCORDANCE WITH ODOT 707.45 AND SHALL BE PVC—SDR 26. USE PROPERLY SIZED FERNCO COUPLING (STRONG BACK RC SERIES) TO CONNECT PROPOSED TO EXISTING SANITARY SEWER PIPE. THE PIPE WILL BE ENCASED IN CONCRETE (ODOT CLASS C) PER DETAIL ON SHEET 6.

(M) SEWER REHABILITATION-CURED IN PLACE PIPE;

SEE SECTION 02957, SEWER LINING, IN TECHNICAL SPECIFICATIONS FOR DETAILS ON REQUIRED CURED—IN—PLACE—PIPE SEWER LINING.

VI. EROSION CONTROL:

(A) TEMPORARY SOIL EROSION AND SEDIMENT CONTROLS

THE CONTRACTOR SHALL PREVENT AND/OR REDUCE AND CONTROL SOIL EROSION RESULTING FROM THE PROPOSED IMPROVEMENTS. THE USE OF SILT FENCING, JUTE MATING, TEMPORARY SEEDING, SOD, SILT CHECKS, INLET PROTECTION AROUND ALL CATCH BASINS, AND STABILIZED CONSTRUCTION ENTRANCE(S) ETC. WILL BE REQUIRED. SEDIMENT CONTROL STRUCTURES/DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUAL RAINWATER AND LAND DEVELOPMENT -OHIO'S STANDARDS FOR STORM WATER MANAGEMENT LAND DEVELOPMENT AND URBAN STREAM PROTECTION, SECOND EDITION DATED 1996. SEDIMENT CONTROL DEVICES MUST BE INSTALLED PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTINUED INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL DEVICES. THE CONTRACTOR SHALL FOLLOW THE REQUIREMENTS SET FORTH ON THE APPROVED STORM WATER POLLUTION PREVENTION PLAN IF APPLICABLE, OR ON THE DETAILED CONSTRUCTION PLANS.

(B) ROCK CHANNEL PROTECTION. AS PER PLAN:

ROCK CHANNEL PROTECTION, IF REQUIRED, SHALL MEET THE REQUIREMENTS OF ODD'T ITEM 601. GEOTEXTILE FABRIC SHALL BE PLACED UNDER ALL ROCK CHANNEL PROTECTION AND SHALL MEET THE REQUIREMENTS OF ODOT ITEM 712.09 GEOTEXTILE FABRICS, TYPE 'B' (FILTER BLANKETS FOR ROCK CHANNEL PROTECTION). REFER TO DETAILED PLAN DRAWINGS FOR THE SPECIFIC LOCATION, TYPE, LENGTH, WIDTH AND THICKNESS OF THE ROCK CHANNEL PROTECTION.

HAMMONTREE & ENGINEERS, PLAN 1 & F 를 를 를

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GENERAL NOTES

GP 1137—WAYNESBURG DRIVE SE

SANITARY SEWER REHABILITATION
FOR: THE CITY OF CANTON
D IN THE CITY OF CANTON TOWN
SECTION 14 NW, STARK COUNTY, OHIO

SCALES

HORIZ: N/A VERT: N/A CONTOUR. INT: N/A

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(A) MAINTAINING TRAFFIC:

THE CONTRACTOR SHALL MAINTAIN TRAFFIC ADJACENT TO AND THROUGH THE PROJECT AS DESCRIBED BELOW AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE OHIO DEPARTMENT OF TRANSPORTATION MANUAL OF CONSTRUCTION AND MATERIALS SPECIFICATIONS ITEM 614 MAINTAINING TRAFFIC. THE CONTRACTOR SHALL FURNISH, MAINTAIN, AND REMOVE ALL SIGNS, FLAGS, FLAGMEN, WATCHMEN, BARRICADES, SIGN SUPPORTS, CONES, BARRELS, AND INCIDENTALS IN CONFORMANCE WITH THE MOST RECENT REVISIONS OF THE CURRENT EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS. INTERFERENCE WITH VEHICULAR TRAFFIC SHALL BE KEPT TO A MINIMUM AT ALL TIMES. ALL OPEN TRENCHES AND EXCAVATIONS SHALL BE PROTECTED WITH DRUMS, BARRICADES, OR BARRIERS. ACCESS SHALL BE MAINTAINED AT ALL TIMES FOR EMERGENCY AND FIRE DEPARTMENT VEHICLES.

ANY TEMPORARY ROADWAY CLOSING MUST BE APPROVED IN WRITING BY THE CITY TRAFFIC ENGINEER AND ANY OTHER PUBLIC AGENCY HAVING JURISDICTION. THE CONTRACTOR SHALL NOTIFY THE TRAFFIC ENGINEER AT LEAST 72 HOURS IN ADVANCE OF ANY SUCH CLOSINGS FOR PUBLICATION AND EMERGENCY AGENCY NOTIFICATION.

(B) RESIDENTIAL AND BUSINESS AREAS:

THE CONTRACTOR SHALL MAINTAIN ACCESS TO LOCAL RESIDENCES AND BUSINESSES DURING CONSTRUCTION. IN THE EVENT A DRIVE ACCESS NEEDS TO BE CLOSED, THE CONTRACTOR SHALL GIVE NOTICE OF CLOSURE AND DURATION TO THE PROPERTY OWNER 24 HOURS IN ADVANCE. CONTRACTOR SHALL ARRANGE FOR ALTERNATE PARKING AND REASONABLE ACCESS FOR THOSE PROPERTY OWNERS AFFECTED BY DRIVE CLOSURES.

(C) EXISTING STREET NAME AND TRAFFIC CONTROL SIGNS:

WHERE WORK REQUIRES THE MOVEMENT OF EXISTING SIGNS (STOP SIGNS, SPEED LIMIT SIGNS, NO PARKING SIGNS, ETC.). THE CONTRACTOR IS REQUIRED TO MAINTAIN THE FUNCTION OF ALL TRAFFIC CONTROL SIGNS. ALL SIGNS REMOVED BY THE CONTRACTOR SHALL BE STORED ON SITE AND REINSTALLED BY THE CONTRACTOR.

(D) NEW STREET NAME & TRAFFIC CONTROL SIGNS:

ALL STREET NAME AND TRAFFIC CONTROL SIGNS SHALL COME COMPLETE AND BE MADE IN ACCORDANCE WITH THE CITY OF CANTON SIGN AND PAINT DEPARTMENT SPECIFICATIONS. GENERALLY, ALL SIGNS SHALL HAVE HI—INTENSITY SHEETING AND BE MADE WITH .080 50/52 ALUMINUM. STREET NAME SIGNS SHALL BE MADE WITH WHITE UPPER AND LOWER CASE LETTERING ON GREEN BACKGROUND USING 9" BLANKS, BE DOUBLED SIDED W/RADIUS CORNERS AND HAVE 6" NAME AND 3" SUFFIXES. ALL SIGN RELATED HARDWARE IS TO BE INCLUDED, SUCH AS 6" HEAVY DUTY U—CHANNEL CAPS AND STREET NAME CROSSES.

FOR SUBDIVISION DEVELOPMENTS, ALL PERMANENT STREET NAME SIGNS AND TRAFFIC CONTROL SIGNS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

(E) EXISTING TRAFFIC SIGNALS:

WHERE WORK REQUIRES INTERFERENCE WITH EXISTING SIGNALIZATION IN THE INTERSECTIONS, ALL WORK SHALL BE COORDINATED THROUGH THE CITY ENGINEER. THE CONTRACTOR SHALL NOT ALTER ANY SIGNALIZATION WITHOUT THE CITY ENGINEER'S AUTHORIZATION.

(F) NEW TRAFFIC SIGNALIZATION:

ALL NEW OR MODIFIED TRAFFIC SIGNALIZATION AT INTERSECTIONS SHALL BE IN ACCORDANCE WITH CITY TRAFFIC ENGINEERING TRAFFIC CONTROL GENERAL NOTES AND ODOT SPECIFICATIONS; WITH SPECIAL EMPHASIS ON ODOT ITEMS 625, 632, 633, 732, AND 733 WHICH DEALS WITH TRAFFIC CONTROL.

(G) TRAFFIC CONTROL PLAN:

THE CONTRACTOR SHALL SUBMIT TO THE CITY ENGINEER A TRAFFIC CONTROL PLAN IN ACCORDANCE WITH CITY SUPPLEMENTAL SPECIFICATION 01-00. DETOURS, IF NECESSARY, SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO PLAN SUBMISSION.

VIII. WATER MAIN / SERVICES:

(A) WATER MAINS/SERVICES:

ALL WATER MAINS, SERVICES AND APPURTENANCES SHALL BE CONSTRUCTED ACCORDING TO THE CITY OF CANTON WATER DEPARTMENT REQUIREMENTS AND SPECIFICATIONS IN EFFECT AT THE TIME OF CONSTRUCTION. ANY DEVIATION FROM THE PLANS AFFECTING THE WATER SYSTEM MUST BE APPROVED BY THE CANTON WATER DEPARTMENT.

FOR NEW DEVELOPMENTS INSIDE THE CITY, ALL WATER MAIN PIPE MATERIAL FITTINGS, BENDS, VALVES, VALVE BOXES, MEGALUGS, GASKETS AND HYDRANTS WILL BE SUPPLIED BY THE CITY OF CANTON. THE CONTRACTOR WILL BE RESPONSIBLE FOR TRANSPORTING MATERIALS TO THE PROJECT SITE. BACKFILL, BEDDING, THRUST BLOCKING, ETC. AND ASSOCIATED LABOR IS THE RESPONSIBILITY OF THE CONTRACTOR.

WATER MAINS SHALL BE CLASS 53 (12" AND UNDER) OR CLASS 54 (OVER 12") DUCTILE IRON MEETING AWWA C-151 WITH PUSH JOINTS. THE MINIMUM COVER OVER WATER MAINS SHALL BE 4"-6" FROM GROUND SURFACE TO THE BARREL OF THE PIPE. THE OUTSIDE SURFACE OF ALL DUCTILE IRON PIPE, FITTINGS, AND APPURTENANCES SHALL BE SHOP COATED WITH EITHER A COAL TAR OR ASPHALT BASE BITUMINOUS MATERIAL. IF THE COATING MATERIAL IS FOUND TO BE DAMAGED PRIOR TO THE PIPE TRENCH BEING BACKFILLED, THE CONTRACTOR SHALL PROVIDE AN ADDITIONAL APPROVED MATERIAL AS REQUIRED TO REPAIR THE DAMAGES. THE CONTRACTOR SHALL HAVE SUFFICIENT COATING MATERIAL AVAILABLE AT THE JOB SITE PRIOR TO LAYING THE PIPE. THE INTERIOR OF ALL PIPES AND FITTINGS SHALL BE LINED WITH DOUBLE CEMENT MORTAR AND SEAL COATED IN COMPLETE CONFORMANCE WITH AWWA C-104, OR THE LATEST REVISION. FITTINGS SHALL BE RATED FOR 250 PSI WORKING PRESSURE IN ACCORDANCE WITH AWWA C-153. PIPE LENGTHS MAY BE DEFLECTED AT THE JOINT IF REQUIRED, AT ONE-HALF THE DEGREE RECOMMENDED BY THE MANUFACTURER. WATER SERVICES WILL BE INSTALLED BY THE CITY OF CANTON AND PAID FOR BY THE OWNER/DEVELOPER. DISINFECTION OF WATER MAINS SHALL BE IN ACCORDANCE WITH AWWA C-651. ALL WATER LINE PRESSURE TESTING SHALL CONFORM TO AWWA C-600.

WATER MAINS SHALL BE INSTALLED AND BACKFILLED PER O.D.O.T. ITEM 638. WATERLINES LOCATED WITHIN THE LIMITS OF OR WITHIN A 1/2 TO 1 SLOPE OF EXISTING AND/OR PROPOSED ROADWAYS, PARKING AREAS, BUILDINGS, BUILDINGS, SIDEWALKS, AND/OR DRIVES SHALL BE INSTALLED AS TYPE B CONDUITS. ALL OTHER WATER MAINS MAY BE INSTALLED AS TYPE C CONDUITS. BEDDING SHALL BE AS SPECIFIED, EXCEPT THAT SLAG WILL NOT BE PERMITTED.

ALL BENDS, FITTINGS, TEES, VALVES, DEAD ENDS, ETC. SHALL BE SECURED EQUAL. POURED—IN—PLACED CONCRETE THRUST BLOCKS SHALL ALSO BE PROVIDED AT/FOR EACH BEND, FITTINGS, TEE, DEAD END, ETC. THIS BLOCKING SHALL BE CAREFULLY PLACED TO ENSURE IT IS POSITIONED PROPERLY TO WITHSTAND THE RESULTANT FORCES AT EACH BEND, FITTING, ETC. AND SHALL BEAR ON STABLE UNDISTURBED GROUND CAPABLE OF WITHSTANDING THE POTENTIAL LOADING.

IN ADDITION TO THE RESTRAINT OF ALL BENDS, FITTINGS, TEES, VALVES, DEAD END, ETC. THE CONTRACTOR SHALL ALSO SECURE/RESTRAIN ALL JOINTS FOR AT LEAST THREE (3) PIPE JOINTS (50) LF MIN.) ON BOTH SIDES OF EACH DEAD END, BEND, FITTING, VALVE, TEE, ETC. UTILIZING MEGALUGS, FIELD LOK GASKETS, OR APPROVED EQUAL.

THE CONTRACTOR SHALL PROVIDE 18" VERTICAL CLEARANCE BETWEEN PROPOSED WATERLINES AND ANY SANITARY SEWERS. WHEN 18" CLEARANCE BETWEEN A WATERLINE AND SANITARY SEWER CANNOT BE OBTAINED THE CONTRACTOR SHALL PROVIDE CONCRETE ENCASEMENT AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE 12" MINIMUM CLEARANCE BETWEEN WATERLINE AND STORM SEWER. THE CONTRACTOR SHALL MAINTAIN TEN (10) FOOT HORIZONTAL CLEARANCE BETWEEN WATERLINES/SERVICES AND SANITARY SEWERS AND FOUR (4) FOOT HORIZONTAL CLEARANCE BETWEEN WATERLINES/SERVICES AND STORM SEWERS.

FIRE HYDRANTS SHALL BE MUELLER A423 MEETING THE CITY OF CANTON WATER DEPARTMENT STANDARDS AND REQUIREMENTS. ALL COSTS FOR THE 6" PIPING ASSOCIATED WITH THE INSTALLATION OF FIRE HYDRANTS SHALL BE INCLUDED WITH THE FIRE HYDRANT PAY ITEM. ALL HYDRANTS WILL BE INSTALLED WITH THE PUMPER NOZZLE FACING THE STREET.

ALL WATER SERVICES MUST BE INSTALLED BEFORE ANY PAVEMENT FOR THE PROPOSED ROADWAYS HAS BEEN PLACED. CONTRACTOR IS NOT TO MAKE ANY SERVICE TAPS ON THE WATER MAIN. THE CANTON WATER DEPARTMENT WILL MAKE ALL SERVICE TAPS.

THE PROPOSED FACILITIES WILL MAINTAIN A MINIMUM 35 PSI PRESSURE DELIVERED TO THE CURB STOP DURING NORMAL OPERATING CONDITIONS BOOSTER PUMPS ARE NOT PERMITTED ON SERVICE

ALL DUCTILE IRON PIPE, INCLUDING FITTINGS AND APPURTENANCES BURIED UNDERGROUND, SHALL BE ENCASED WITH 8 MIL POLYETHYLENE FILM CONFORMING TO AWWA C105.

POLYETHYLENE WATER MAIN AND SERVICE TUBING 2" AND UNDER SHALL BE COPPER TUBE SIZE AND MEET STANDARDS ASTM-D2737 PE3408 AND AWWA C906. THE ONLY ACCEPTED TUBING IS CP CHEM PERFORMANCE PIPE DRISCOPLEX 5100-UI TRA-LINE.

THE CONTRACTOR SHALL TAKE ANY AND ALL NECESSARY PRECAUTIONS TO PROTECT AND MAINTAIN IN SERVICE, ANY EXISTING WATER MAINS EXPOSED DURING CONSTRUCTION.

ANY WATER SERVICE LINE THAT IS BROKEN, CUT OR OTHERWISE DAMAGED, SHALL BE REPLACED FROM THE CORPORATION STOP TO THE CURB STOP WITH A SINGLE PIECE OF PLASTIC SERVICE LINE (ORISCOPLEX). NO SPLICING OF THE SERVICE LINE WILL BE PERMITTED.

SERVICE BRANCHES WILL BE INSTALLED AS PER O.D.O.T ITEM 638.16 WITH THE FOLLOWING EXCEPTIONS:

1. WHEN A SERVICE BRANCH IS DISTURBED FOR LOWERING, RAISING, EXTENDING OR SHORTENING ON THE PROPERTY SIDE ON THE SERVICE STOP, IT SHALL BE REPLACED WITH NEW MATERIALS FROM THE CORPORATION STOP TO THE SERVICE STOP.

IN A STREET IMPROVEMENT, NO EXISTING WATER CURB BOX WILL BE LEFT IN THE PAVEMENT, CURB AND GUTTER OR SIDEWALK THE CURB BOX WILL BE MOVED TO A SUITABLE LOCATION DETERMINED BY THE CANTON WATER DEPARTMENT. WHEN THE CURB BOX IS MOVED ALL NEW MATERIAL WILL BE USED FROM THE CORPORATION STOP TO THE THE CURB STOP WHICH IS A SINGLE PIECE OF PLASTIC SERVICE LINE (DRISCOPLEX). NO SPLICING OF THE SERVICE LINE WILL BE PERMITTED. A NEW TAP (CORPORATION STOP) AND CURB STOP AND BOX MAY ALSO BE REQUIRED. THE DETERMINATION WILL BE MADE BY THE CANTON WATER DEPARTMENT.

ALL WATER MAINS WILL BE INSTALLED UNDER THE PAVEMENT WITH A MINIMUM OF 3 FEET FROM THE EDGE OF PAVEMENT OR THE CURB AND/OR GUTTER. IN EXISTING STREETS, A SAW CUT WILL BE MADE TO ENSURE A CLEAN EDGE.

WHEN AN EXISTING WATER MAIN MUST BE SHUT DOWN TO PERFORM REQUIRED WORK, THE PROPERTIES TO BE EFFECTED SHALL BE GIVEN A MINIMUM 24 HOUR NOTICE OF SAID SHUT DOWN. THE WORK WILL BE SCHEDULED AND COORDINATED TO MINIMIZE THE TIME THE MAIN IS OUT OF SERVICE.

THE CONTRACTOR SHALL NOTIFY THE CITY 48 HOURS IN ADVANCE OF ANY SHUT DOWN OF AN EXISTING WATER MAIN. THE CONTRACTOR WILL NOT OPERATE ANY VALVES. VALVES WILL BE OPERATED BY CANTON WATER DEPARTMENT PERSONNEL ONLY. VALVES DAMAGED BY THE CONTRACTOR'S OPERATION WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

ALL VALVE BOXES WILL BE ADJUSTED TO FINAL GRADE OF THE PAVEMENT WHEN THE PROJECT IS COMPLETED.

IX. POST CONSTRUCTION INCIDENTALS

(A) AS-BUILT DRAWINGS (PRIVATE PROJECTS):

AS-BUILT REPRODUCIBLE MYLARS SHALL BE PROVIDED TO THE CITY OF CANTON BY THE DESIGN ENGINEER AT THE COMPLETION OF THE PROJECT. THE CONSTRUCTION BOND WILL NOT BE RELEASED UNTIL THE AS-BUILT DRAWINGS HAVE BEEN ACCEPTED.

(B) PROPOSED MONUMENTATION:

THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER IN WRITING UPON THE COMPLETION OF MONUMENTS BEING SET AS PER PLAN OR RECORD PLAT.

(C) RELEASE OF RETAINER/BONDS:

PRIOR TO THE RELEASE OF RETAINER/CONSTRUCTION BOND BY THE CITY OF CANTON, THE CONTRACTOR SHALL HAVE COMPLETED THE ENGINEER'S PROJECT PUNCHLIST AND SUBMIT. FINAL WAVER OF LIEN, IN ACCORDANCE WITH CITY SS 01-00.

CONTROL POINTS

PT. NO.	NORTHING (Y)	EASTING (X)	ELEV.
10	409769.03	2287471.84	1057.43
51	409816.44	2287510.63	1059.24
55	409745.16	2287053.87	1049.54

LEGEND

R/W	RIGHT OF WAY
Ę.	CENTER LINE
PL	PROPERTY LINE
ų.	LOT LINE
0	EX. MONUMENT FOUND (AS NOTED)
•	1/2 INCH IRON BAR W/ H&A CAP SET
()	RECORD BEARINGS & DISTANCES
E.O.P.	EDGE OF PAVEMENT
F.F.	FINISH FLOOR ELEVATION
	FENCE (AS NOTED)

GUARD RAIL MAILBOX

•	POST
ø	POWER POLE
ø	TELEPHONE POLE
æ	TELEBUONE / LIGHT DO

-	
₫	TELEPHONE/ POWER POLI
ø	GENERAL POLE
ø	LIGHT POLE

Ø	LIGHT/ POWER POLE
₫	LIGHT/ POWER/ TELEPHONE POLE

₫	LIGHT/ POWER/ TELEPHO	NE, CABLE TV	,
T	ANCHOR		

POLE

	GN (AS NOTED)	
■ TR	EE (AS NOTED)	

- RAIL ROAD

	H.C.	RAMP	W/	TRUNCATED	DOME
T/G	TOP	OF G	RATE		

T/C	TOP OF COVER
£	FLOW LINE
-TV-	CABLE LINE
	CABLE BOX
-E-	ELECTRIC LINE
G	FLECTRIC BOX

-0-	GAS	DIAL		
©	GAS	LINE	MARKER	

- PROP. MANHOLE (AS NOTED)
- PROP. MANHOLE (AS)
- -ST- STORM SEWER LINE

 EX. STORM C.B.
- PROP. STORM C.B.
- FD FLOOR DRAIN
 RD ROOF DRAIN
- DS DOWN SPOUT -T- TELEPHONE LINE
- TELEPHONE BOX

 -W- WATER LINE

 ▼ EX. FIRE HYDRANT
- PROP. FIRE HYDRANT
- EX. VALVE (AS NOTED)
 PROP. VALVE (AS NOTED)

EX. CONTOUR LINE

PROP. CONTOUR LINE
980 CONTOUR LABEL
1892.95 SPOT ELEVATION

SOIL BORING

5 10

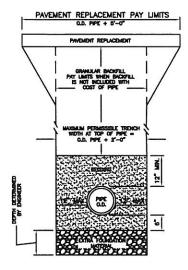
SCALES

HORIZ: N/A VERT: N/A CONTOUR. INT: N/A

37—WANESBURGE STANDS NAT SEWER REHABILITATION IR: THE CITY OF CANTON 14 NW, STARK COUNTY, OF

≥ 5

HAMM



GRANULAR BACKFILL, PAVEMENT & EXTRA FOUNDATION MATERIAL PAYMENT LIMITS

EXTRA FOUNDATION MATERIAL

DEFINITION:

WHEN IN THE OPINION OF THE ENGINEER, SOFT UNSTABLE MATERIALS ARE ENCOUNTERED WHICH ARE UNSUITABLE FOR BEDDING FOUNDATION, SAID MATERIAL SHALL BE REMOVED BY THE CONTRACTOR TO THE DEPTH DIRECTED BY THE ENGINEER AND REPLACED WITH SUITABLE MATERIAL. IF SUITABLE REPLACEMENT MATERIALS ARE NOT FOUND IN EXCAVATION, THEY SHALL BE PAID FOR UNDER THIS SECTION.

MATERIAL:

SHALL CONSIST OF RUN-OF-MINE GRAVEL, GRAVEL, CRUSHED STONE OR SLAG TO THE SATISFACTION OF THE ENGINEER.

OFFICE OF THE CITY ENGINEER

CANTON, OHIO

DANIEL J. MOEGLIN, P.E. CITY ENGINEER

2436 30th STREET N.E. 44705 (330)489-3381

ROCK EXCAVATION PAY LIMITS

PAYMENT:

THE PRICE BID AND PAID THE CONTRACTOR FOR EXTRA FOUNDATION MATERIAL SHALL BE PER CUBIC YARD PLACED, AS NAMED IN THE PROPOSAL THEREFOR, AND SHALL INCLUDE ALL LABOR AND MATERIALS INCIDENTAL TO THE FURNISHING AND PLACING OF EXTRA FOUNDATION MATERIAL INCLUDING THE EXCAVATION OF THE MATERIAL TO BE REPLACED, SHEETING, BRACING, PUMPING, DRAINING, REMOYAL OF SURPLUS MATERIALS AND GRADING OF THE EXTRA FOUNDATION MATERIAL.

PAY LIMITS - TRENCHES,

ROADWAYS & STRUCTURES

STRUCTURES: ROCK EXCAVATION FOR STRUCTURES, UNLESS OTHERWISE SPECIFIED OR SHOWN ON THE DRAWINGS, SHALL BE MEASURED BETWEEN VERTICAL PLANES ONE (1) FOOT BEYOND THE NEAT LINES OF THE FOUNDATION OF THE STRUCTURES ON ALL SIDES, AND PARALLEL THERETO, AND FROM THE SURFACE OF THE ROCK TO THE NEAT LINES OF THE BOTTOM OF THE STRUCTURES.

REVISIONS DATE: AUGUST 2009 DRAWN BY: DJH STANDARD DRAWING NO. 32 DESCRIPTION DATE BY N/A APP'D BY: H. SCALE: N/A FIELD BK: V. SCALE: SHEET 1 OF 1 DWG#

SHEET NO.	REFERENCE NO.	STATION TO STATION	CONSTRUCTION STAKING	. 18" SANITARY SENER LINING—CIPP, AS PER PLAN	. 18" PVC SDR-26 SANITARY SEMER W/CONCRETE ENCASEMENT	TEMPORARY BYPASS PUMPING (SEWER), AS PER PLAN	MAINTENANCE OF TRAFFIC, AS PER PLAN	REMOVE AND REPLACE STORM CULVERT-48" CMP (PER ODOT 707.33)	STORMINATER POLLUTION PREVENTION PLAN, CREEK/STREAM DIVERSION & TRENCH DEWATERING, AS PER PLAN
7.0			LUMP	L.F.	L.F.	LUMP	LUMP	LF.	LUMP
7-8			1						
7	SL-1	STA. 10+00-STA. 11+72		172					
8	SR-1	STA. 101+84-STA. 102+24			50				
9	BP-1				À	1			
8						-	1		
8	RC-1	STA. 102+16-STA. 102+40				MANOS.		24	
8									1

TOTAL

172 50 1 1 24

HAMMONTREE & ASSOCIATES, ENGINEERS, PLANNERS, SURVEYORS CANTON—ARRON—PITTSBURGH

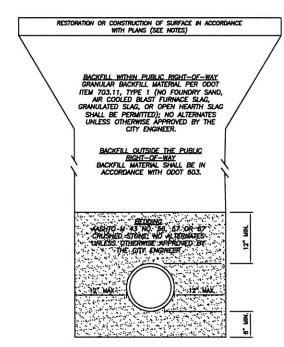
SCALES

HORIZ: N/A VERT: N/A CONTOUR. INT: N/A

6

NOTE: THE UNIT PRICE FOR THE SEWER REPLACEMENT ITEM IN THE BID SHALL INCLUDE VIDEO TELEVISING OF THE SANITARY SEWER LINE AFTER THE REPLACEMENT OF THE SEWER TO OBSERVE THE CONNECTION TO THE EXISTING SANITARY SEWER UPSTREAM AND DOWNSTREAM OF THE REPLACEMENT PIPE.

GENERAL SUMMARY OF QUANTITIES



NOTES:

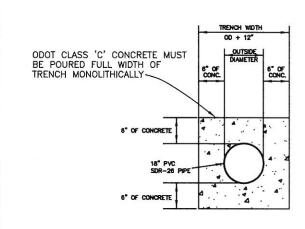
REDDING FOR REINFORCED CONCRETE PIPE SHALL EXTEND 3" BELOW THE BOTTOM OF PIPE AND FLUSH WITH THE TOP OF PIPE.

INSTALLATION METHODS OF BACKFILL AND BEDDING MATERIAL SHALL CONFORM WITH ODOT 603. ALL BACKFILL UNDER STREET PAVEMENT SHALL BE PLACED IN LAYERS NOT TO EXCEED 8—INCHES LOOSE DEPTH AND COMPACTED BY APPROVED MECHANICAL MEANS. ALL MATERIALS USED UNDER PAVEMENTS SHALL BE GRANULAR MATERIAL (PER THE ABOVE NOTED REQUIREMENTS), AND SHALL CONTAIN NO CLAY. JETTING IS NOT APPROVED WITHOUT THE CITY ENGINEER'S

INENCH SURFACE:
ALL TRENCHES SHALL BE TOPPED WITH 4" OF ODOT
304 LIMESTONE WITHIN EXISTING ROADWAY PAVEMENTS
WHEN THE ROADWAY WILL BE OPEND TO VEHICULAR
TRAFFIC PRIOR TO PAVEMENT REPLACEMENT. THE
TRENCH TOPPING MATERIAL SHALL BE ROLLED OR
OTHERWISE COMPLETED FLUSH WITH THE ADJOINING
PAVEMENT.

ROAD PAVEMENTS SHALL BE REPLACED IN ACCORDANCE WITH CITY STANDARD DRAWING NO. 44

LAWN SURFACES SHALL BE REPLACED WITH A MINIMUM OF 4" TOPSOIL, SEEDED, AND MULCHED. SEED MIX SHALL CONFORM TO ADJOINING LAWN GRASS.



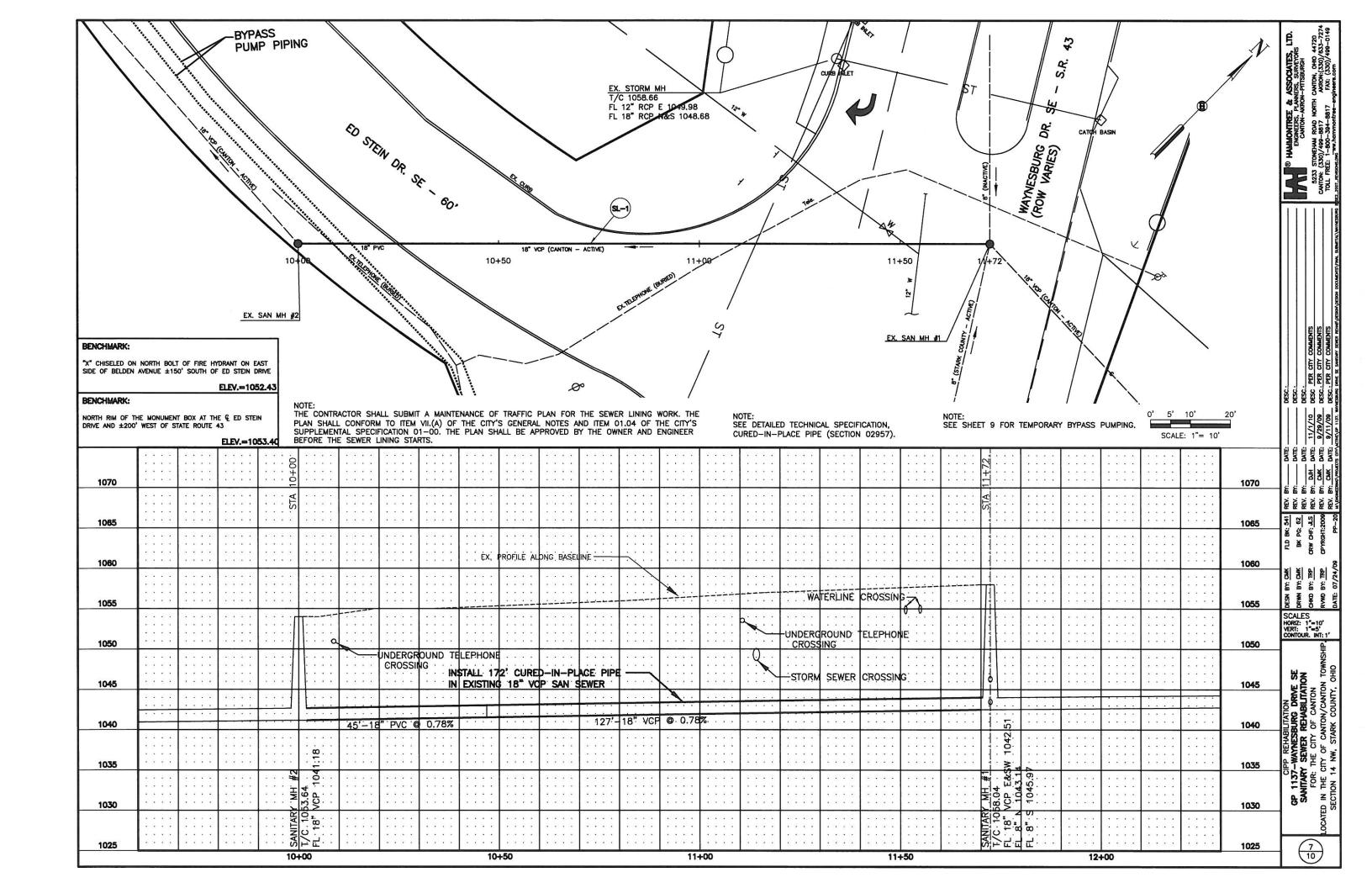
CONCRETE ENCASEMENT NOT TO SCALE

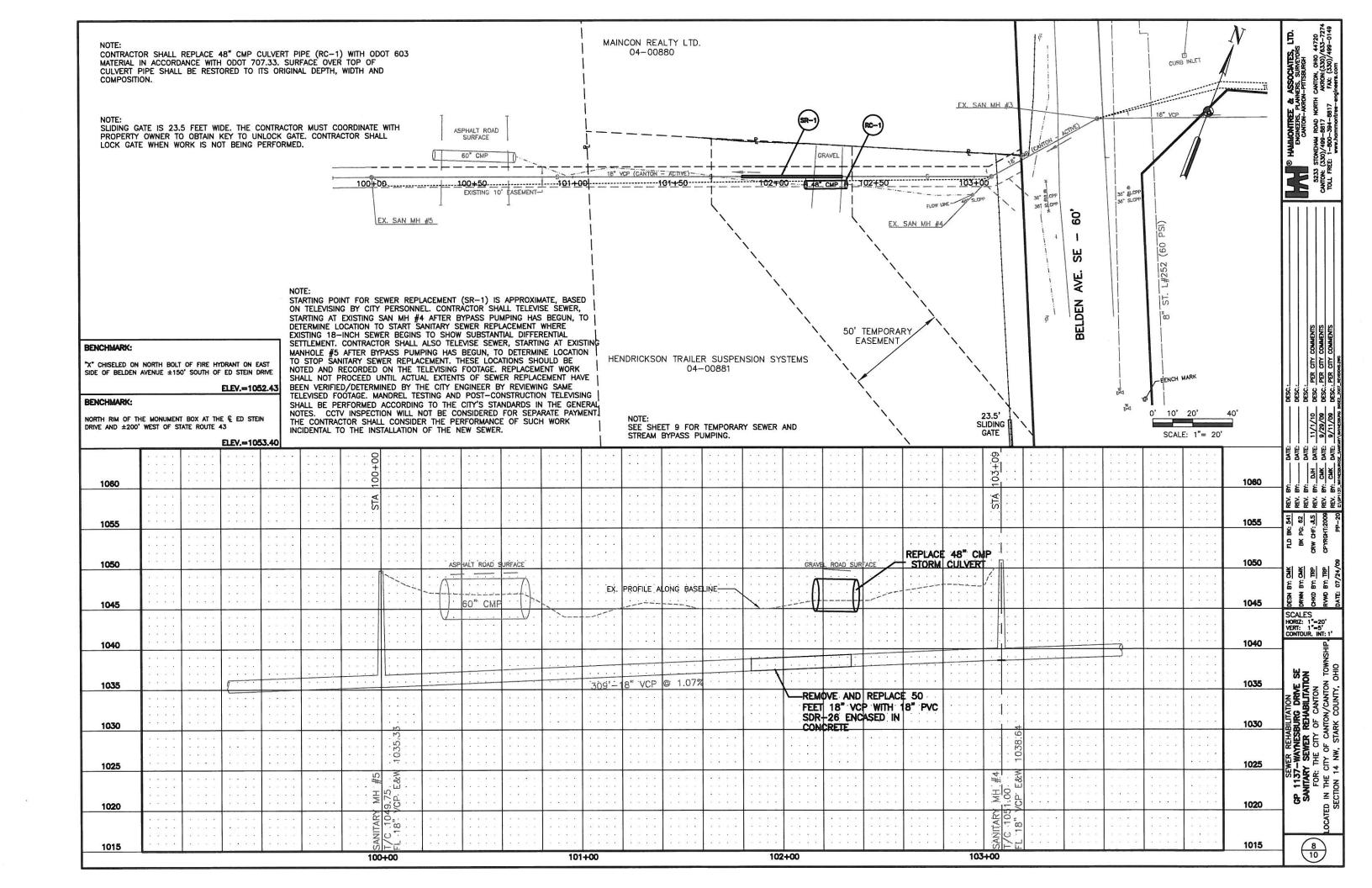
OFFICE OF THE CITY ENGINEER CANTON, OHIO

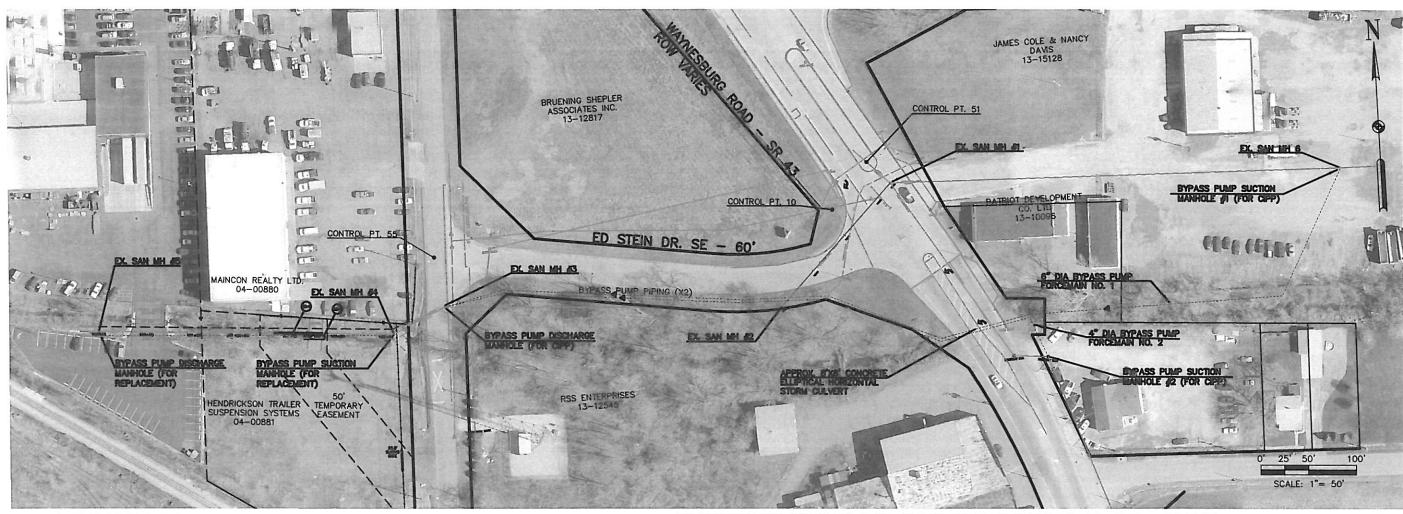
DANIEL J. MOEGLIN, P.E., CITY ENGINEER 2436 30th STREET N.E. 44705 (330)489-3381

STANDARD DRAWING NO. 29 BACKFILL & BEDDING FOR UTILITY DITCHES

DATE: AUGUST 2009 DRAWN BY: DJH DESCRIPTION DATE BY H. SCALE: N/A APP'D BY: N/A FIELD BK: V. SCALE: SHEET 1 OF 1







TEMPORARY SEWER BYPASS PUMPING
THE CONTRACTOR SHALL PROVIDE TEMPORARY BYPASS PUMPING FOR SEWER LINING AND SEWER REPLACEMENT PROJECTS. THE TEMPORARY BYPASS PUMPING WILL HAVE THE FOLLOWING MINIMUM REQUIREMENTS:

- A. PROVIDE 2 PUMPS, EACH CAPABLE OF THE MINIMUM REQUIREMENTS NOTED BELOW, WITH POSSIBLE PERIODS OF LITTLE OR NO WASTEWATER FLOW
- B. PUMPS SHALL BE SELF-PRIMING, (REQUIRING NO SPECIAL EQUIPMENT FOR THE PRIMING), WITH THE FOLLOWING REQUIREMENTS FOR
 - 1. SEWER LINING (CIPP): 2 LOCATIONS
 - 6" DIAMETER SETUP:

CAPABLE OF PUMPING 2.5 MILLION GALLONS PER DAY (MGD), MINIMUM SUCTION HEAD OF 16 FEET (EXISTING SAN. MH #6) AND LENGTH OF APPROXIMATELY 1,050 FEET (TO EXISTING SAN. MH #3).

4" DIAMETER SETUP:

CAPABLE OF PUMPING 1.0 MILLION GALLONS PER DAY (MGD), MINIMUM SUCTION HEAD OF 12 FEET (EXISTING STARK COUNTY SAN. MH) AND LENGTH OF APPROXIMATELY 680 FEET (TO EXISTING SAN. MH

2. SEWER REPLACEMENT:

CAPABLE OF PUMPING 2.5 MILLION GALLONS PER DAY (MGD), SUCTION HEAD OF 13 FEET (EXISITING SAN. MH #4) AND LENGTH OF APPROXIMATELY 305 FEET (TO EXISTING SAN. MH #5).

- C. PUMPS SHALL BE POWERED BY DIESEL FUEL OR APPROVED ALTERNATIVE.
- D. MUFFLERS SHALL BE INSTALLED ON EACH PUMP TO MINIMIZE NOISE.
- E. PUMPS SHALL HAVE AUTOMATIC AND MANUAL START/STOP CONTROLS.

CONTRACTOR SHALL USE PROPER PLUGS TO PLUG THE DOWNSTREAM 18" SEWER FOR THE FOLLOWING PROJECTS DURING THE TEMPORARY BYPASS PUMPING:

- A. SEWER LINING: LOCATION NO. 1 DOWNSTREAM 18" SEWER IN EXISTING SAN. MH #6. LOCATION NO. 2 - DOWNSTREAM 8" SEWER IN EXISTING STARK COUNTY SANITARY MANHOLE.
- B. SEWER REPLACEMENT: DOWNSTREAM 18" SEWER IN EXISTING SAN. MH #4.

THE TEMPORARY PIPING SHALL BE RIGID WITH BALL AND SOCKET CONNECTIONS, PROVIDING LEAK-PROOF PIPE WITH DEFLECTIONS UP TO 20%. HDPE PIPE (FUSED) IS THE ONLY ALLOWABLE ALTERNATE FOR THIS PIPING.

THE CONTRACTOR SHALL PROVIDE A WORKING TEMPORARY BYPASS PUMPING SYSTEM THAT MEETS OSHA REQUIREMENTS AND IS PROPERLY OPERATED AND MAINTAINED WHILE THE PUMPING IS PERFORMED.

THE CONTRACTOR SHALL MAINTAIN SERVICE FOR ANY CUSTOMERS CONNECTED TO THE SANITARY SEWER WHILE THE TEMPORARY BYPASS PUMPING IS PERFORMED. BACK-UPS OF SANITARY SEWER SHALL BE THE CONTRACTOR'S RESPONSIBILITY FOR ALL COSTS AND LEGAL CLAIMS.

THE COST OF THE TEMPORARY BYPASS PUMPING SHALL BE INCLUDED IN THE COST OF THE SEWER LINING AND SEWER REPLACEMENT ITEMS IN THE BID.

WITH THE SHOP DRAWING SUBMITTALS FOR THE PROJECT, THE CONTRACTOR SHALL PROVIDE A WRITTEN PLAN FOR THE TEMPORARY BYPASS PUMPING. THE PLAN SHALL CONTAIN A PUMP DESCRIPTION AND CURVES, PIPING SHOP DRAWINGS, INFORMATION ON ALL ACCESSORIES AND A SCHEDULE FOR THE PUMPING. CONSTRUCTION SHALL NOT START UNTIL THE PLAN IS APPROVED BY THE OWNER AND ENGINEER.

TEMPORARY STREAM BYPASS PUMPING/TRENCH DEWATERING THE CONTRACTOR SHALL PROVIDE TEMPORARY BYPASS PUMPING IN THE STREAM AND TRENCH WHERE THE SEWER REPLACEMENT WILL BE PERFORMED. THE STREAM SHALL BE BARRICADED UPSTREAM AND DOWNSTREAM OF THE WORK AREA WITH APPROPRIATE MATERIALS (SAND BAGS, GEO-FABRIC, ETC.) TO PREVENT WATER FROM ENTERING THE STREAM AND TRENCH. THE PUMPS SHALL BE PROPERLY SIZED TO NOT ALLOW THE STREAM TO BACK UP ABOVE ITS NORMAL DEPTH OR TO ALLOW WATER TO ENTER THE TRENCH. THE SEWER REPLACEMENT AND RESTORATION OF THE STREAM CHANNEL AND BED AND SEWER TRENCH SHALL BE COMPLETED BEFORE THE BYPASS PUMPING IS STOPPED.

REY. 35. SCALES HORIZ: 1"=50' VERT: N/A CONTOUR. INT: N/A

